

TABLE I-1
EXPOSURE POINT CONCENTRATION (mg/kg)
POND SEDIMENT

Parameter	Average	95% UCL	Statistic Used
4,4'-DDD	6.96E-03	6.76E-04	RME EPC is max detect*
4,4'-DDT	4.16E-03	1.57E-03	RME EPC is max detect*
Benzo(b)fluoranthene	4.77E-02	1.06E-01	RME EPC is max detect
Benzo(g,h,i)perylene	2.40E-02	1.35E-01	RME EPC is max detect
Benzo(k)fluoranthene	5.27E-02	1.30E-01	RME EPC is max detect
Cadmium	1.47E-01	2.70E-01	RME EPC is max detect
Chrysene	9.50E-03	2.57E-02	RME EPC is max detect
Copper	1.52E+01	2.68E+01	RME EPC is max detect
Nickel	1.63E+01	2.06E+01	RME EPC is max detect
Pyrene	1.47E-02	2.65E-02	RME EPC is max detect
Zinc	3.32E+02	9.99E+02	RME EPC is max detect
HPAH	1.49E-01	4.23E-01	
TOTAL PAHs	1.49E-01	4.23E-01	

Notes:

*The maximum detected value is sometimes lower than the average since the reporting limit was used as a proxy value when it was not detected and because J flag data were used in the risk assessment.

TABLE I-2
TOXICITY REFERENCE VALUES

Parameter	Capitella capitata (mg/kg)	Ref.	Comments	Capitella capitata (mg/kg)	Ref.	Comments	Sandpiper (mg/kgBW-day)	Ref.	Comments	Green heron (mg/kgBW-day)	Ref.	Comments
4,4'-DDD	1.00E-03	SQUIRT	ERL	7.00E-03	SQUIRT	ERM	2.27E-01	EPA, 2007a	Highest bounded NOAEL for growth and reproduction lower than the lowest bounded LOAEL for reproduction, growth, and survival	2.27E-01	EPA, 2007a	Highest bounded NOAEL for growth and reproduction lower than the lowest bounded LOAEL for reproduction, growth, and survival
4,4'-DDT	1.00E-03	SQUIRT	ERL	7.00E-03	SQUIRT	ERM	2.27E-01	EPA, 2007a	Highest bounded NOAEL for growth and reproduction lower than the lowest bounded LOAEL for reproduction, growth, and survival	2.27E-01	EPA, 2007a	Highest bounded NOAEL for growth and reproduction lower than the lowest bounded LOAEL for reproduction, growth, and survival
Benzo(b)fluoranthene	1.80E+00	SQUIRT	AET	1.80E+00	SQUIRT	AET						
Benzo(g,h,i)perylene	6.70E-01	SQUIRT	AET	6.70E-01	SQUIRT	AET						
Benzo(k)fluoranthene	1.80E+00	SQUIRT	AET	1.80E+00	SQUIRT	AET						
Cadmium	1.20E+00	SQUIRT	ERL	9.60E+00	SQUIRT	ERM	1.47E+00	EPA, 1999	Geometric mean of NOAEL values for reproduction and growth	1.47E+00	EPA, 1999	Geometric mean of NOAEL values for reproduction and growth
Chrysene	3.84E-01	SQUIRT	ERL	2.80E+00	SQUIRT	ERM						
Copper	3.40E+01	SQUIRT	ERL	2.70E+02	SQUIRT	ERM	4.05E+00	EPA, 2007c	Highest bounded NOAEL for growth and reproduction lower than the lowest bounded LOAEL for reproduction, growth, and survival	4.05E+00	EPA, 2007c	Highest bounded NOAEL for growth and reproduction lower than the lowest bounded LOAEL for reproduction, growth, and survival
Nickel	2.09E+01	SQUIRT	ERL	5.16E+01	SQUIRT	ERM	6.71E+00	EPA, 2007d	Highest bounded NOAEL for growth and reproduction lower than the lowest bounded LOAEL for reproduction, growth, and survival	6.71E+00	EPA, 2007d	Highest bounded NOAEL for growth and reproduction lower than the lowest bounded LOAEL for reproduction, growth, and survival
Pyrene	6.65E-01	SQUIRT	ERL	2.60E+00	SQUIRT	ERM						
Zinc	1.50E+02	SQUIRT	ERL	4.10E+02	SQUIRT	ERM	6.61E+01	EPA, 2007e	Geometric mean of NOAEL values within the reproductive and growth effect groups	6.61E+01	EPA, 2007e	Geometric mean of NOAEL values within the reproductive and growth effect groups
HPAH	1.70E+00	SQUIRT	ERL	9.60E+00	SQUIRT	ERM						
TOTAL PAHs	4.02E+00	SQUIRT	ERL	4.48E+01	SQUIRT	ERM						

Notes:

ERL -- Effects Range-Low

AET -- Apparent Effects Threshold

EPA, 2007a -- DDT

EPA, 2007b -- PAHs

EPA, 2007c -- Copper

EPA, 2007d -- Nickel

EPA, 2007e -- Zinc

TABLE I-3
ECOLOGICAL HAZARD QUOTIENT CALCULATIONS FOR POND SEDIMENT
CAPITELLA CAPITATA

Ecological Hazard Quotient = Sc/TRV					
Parameter	Definition	Default			
Sc	Soil Concentration (mg/kg)	see below			
TRV	Toxicity Reference Value (mg/kg)	see TRV summary page			
Chemical	Average Sc	RME Sc	TRV capitella capitata	Average EHQ	RME EHQ
4,4'-DDD	6.96E-03	6.76E-04	1.00E-03	6.96E+00	6.76E-01
4,4'-DDT	4.16E-03	1.57E-03	1.00E-03	4.16E+00	1.57E+00
Benzo(b)fluoranthene	4.77E-02	1.06E-01	1.80E+00	2.65E-02	5.89E-02
Benzo(g,h,i)perylene	2.40E-02	1.35E-01	6.70E-01	3.58E-02	2.01E-01
Benzo(k)fluoranthene	5.27E-02	1.30E-01	1.80E+00	2.93E-02	7.22E-02
Cadmium	1.47E-01	2.70E-01	1.20E+00	1.23E-01	2.25E-01
Chrysene	9.50E-03	2.57E-02	3.84E-01	2.47E-02	6.69E-02
Copper	1.52E+01	2.68E+01	3.40E+01	4.47E-01	7.88E-01
Nickel	1.63E+01	2.06E+01	2.09E+01	7.81E-01	9.86E-01
Pyrene	1.47E-02	2.65E-02	6.65E-01	2.21E-02	3.98E-02
Zinc	3.32E+02	9.99E+02	1.50E+02	2.21E+00	6.66E+00
HPAH	1.49E-01	4.23E-01	1.70E+00	8.74E-02	2.49E-01
TOTAL PAHs	1.49E-01	4.23E-01	4.02E+00	3.69E-02	1.05E-01

TABLE I-4
INTAKE CALCULATIONS FOR POND SEDIMENT
SANDPIPER

SEDIMENT INGESTION					
INTAKE = (Sc * IR * AF * AUF) / (BW)					
Parameter	Definition		Value	Reference	
Intake	Intake of chemical (mg/kg-day)		calculated		
Sc	Sediment concentration (mg/kg)		see data page		
IR	Ingestion rate of sed (kg/day)		4.33E-04	EPA, 1993	
AF	Chemical Bioavailability in sediment (unitless)		1	EPA, 1997	
AUF	Area Use Factor		1	EPA, 1997	
BW	Body weight (kg)		2.15E-01	Dunning, 1993	
FOOD INGESTION					
INTAKE = ((Cc * IR * Dfc * AUF)/(BW) + (Cw * IR * DFw * AUF) / (BW)					
Parameter	Definition		Value	Reference	
Intake	Intake of chemical (mg/kg-day)		calculated		
Cc	Crab concentration (mg/kg)		see FoodConc page		
Cw	Worm concentration (mg/kg)		see FoodConc page		
IR	Ingestion rate of food (kg/day)		2.17E-02	EPA, 1993	
Dfc	Dietary fraction of crabs (unitless)		4.00E-01	prof. judgement	
Dfw	Dietary fraction of worms (unitless)		6.00E-01	prof. judgement	
AUF	Area Use Factor		1	EPA, 1997	
BW	Body weight (kg)		2.15E-01	Dunning, 1993	
TOTAL INTAKE					
INTAKE = Sediment Intake + Food Intake					
Chemical					
		Average	RME	Average	RME
Chemical		Sc	Sc	Intake	Intake
4,4'-DDD		6.96E-03	6.76E-04	1.40E-05	1.36E-06
4,4'-DDT		4.16E-03	1.57E-03	8.38E-06	3.16E-06
Benz(b)fluoranthene		4.77E-02	1.06E-01	9.60E-05	2.13E-04
Benz(g,h,i)perylene		2.40E-02	1.35E-01	4.83E-05	2.72E-04
Benz(k)fluoranthene		5.27E-02	1.30E-01	1.06E-04	2.62E-04
Cadmium		1.47E-01	2.70E-01	2.96E-04	5.44E-04
Chrysene		9.50E-03	2.57E-02	1.91E-05	5.18E-05
Copper		1.52E+01	2.68E+01	3.06E-02	5.40E-02
Nickel		1.63E+01	2.06E+01	3.29E-02	4.15E-02
Pyrene		1.47E-02	2.65E-02	2.96E-05	5.34E-05
Zinc		3.32E+02	9.99E+02	6.69E-01	2.01E+00
HPAH		1.49E-01	4.23E-01	2.99E-04	8.52E-04
TOTAL PAHs		1.49E-01	4.23E-01	2.99E-04	8.52E-04
Chemical					
		Average	RME	Average	RME
Chemical		Crab	Crab	Worm	Worm
4,4'-DDD		2.80E-02	2.72E-03	5.56E-03	5.41E-04
4,4'-DDT		1.67E-02	6.31E-03	3.33E-03	1.26E-03
Benz(b)fluoranthene		7.48E-02	1.66E-01	7.67E-02	1.71E-01
Benz(g,h,i)perylene		3.76E-02	2.12E-01	3.86E-02	2.17E-01
Benz(k)fluoranthene		8.27E-02	2.04E-01	8.48E-02	2.09E-01
Cadmium		1.47E-01	2.70E-01	5.00E-01	9.18E-01
Chrysene		1.23E-02	3.32E-02	3.26E-02	8.82E-02
Copper		1.52E+01	2.68E+01	1.47E+01	8.04E+00
Nickel		8.82E-01	1.11E+00	1.47E+01	1.85E+01
Pyrene		1.47E-02	2.65E-02	2.37E-02	4.27E-02
Zinc		3.82E+02	1.15E+03	1.89E+02	5.69E+02
HPAH		4.86E-01	1.38E+00	2.39E-01	6.81E-01
TOTAL PAHs		4.86E-01	1.38E+00	2.39E-01	6.81E-01
Chemical					
				TOTAL	TOTAL
Chemical				Average	RME
4,4'-DDD				1.48E-03	1.44E-04
4,4'-DDT				8.85E-04	3.34E-04
Benz(b)fluoranthene				7.76E-03	1.73E-02
Benz(g,h,i)perylene				3.91E-03	2.20E-02
Benz(k)fluoranthene				8.58E-03	2.12E-02
Cadmium				3.65E-02	6.70E-02
Chrysene				2.49E-03	6.73E-03
Copper				1.53E+00	1.62E+00
Nickel				9.58E-01	1.21E+00
Pyrene				2.06E-03	3.71E-03
Zinc				2.75E+01	8.29E+01
HPAH				3.44E-02	9.80E-02
TOTAL PAHs				3.44E-02	9.80E-02

TABLE I-5
INTAKE CALCULATIONS FOR POND SEDIMENT
GREEN HERON

SEDIMENT INGESTION										
INTAKE = (Sc * IR * AF * AUF) / (BW)										
Parameter	Definition			Value	Reference					
Intake	Intake of chemical (mg/kg-day)			calculated						
Sc	Sediment concentration (mg/kg)	see data page		6.42E-04	EPA, 1993					
IR	Ingestion rate of sed (kg/day)			1	EPA, 1997					
AF	Chemical Bioavailability in sediment (unitless)			1	EPA, 1997					
AUF	Area Use Factor			3.75E-01	Dunning, 1993					
BW	Body weight (kg)									
FOOD INGESTION										
INTAKE = ((Cc * IR * Dfc * AUF)/(BW) + (Cw * IR * DFw * AUF) / (BW)										
Parameter	Definition			Value	Reference					
Intake	Intake of chemical (mg/kg-day)			calculated						
Cc	Crab concentration (mg/kg)	see FoodConc page								
Cw	Worm concentration (mg/kg)	see FoodConc page		3.21E-02	EPA, 1993					
IR	Ingestion rate of food (kg/day)			7.50E-01	Kent, 1986					
Dfc	Dietary fraction of crabs (unitless)			2.50E-01	Kent, 1986					
Dfw	Dietary fraction of worms (unitless)			1	EPA, 1997					
AUF	Area Use Factor			3.75E-01	Dunning, 1993					
BW	Body weight (kg)									
Chemical										
Average		RME	Average		RME	Intake				
Chemical		Crab	Crab		Worm	Worm				
4,4'-DDD	2.80E-02	2.72E-03	5.56E-03	5.41E-04		1.91E-03	1.86E-04			
4,4'-DDT	1.67E-02	6.31E-03	3.33E-03	1.26E-03		1.14E-03	4.32E-04			
Benzo(b)fluoranthene	7.48E-02	1.66E-01	7.67E-02	1.71E-01		6.45E-03	1.43E-02			
Benzo(g,h,i)perylene	3.76E-02	2.12E-01	3.86E-02	2.17E-01		3.24E-03	1.83E-02			
Benzo(k)fluoranthene	8.27E-02	2.04E-01	8.48E-02	2.09E-01		7.13E-03	1.76E-02			
Cadmium	1.47E-01	2.70E-01	5.00E-01	9.18E-01		2.02E-02	3.70E-02			
Chrysene	1.23E-02	3.32E-02	3.26E-02	8.82E-02		1.48E-03	4.01E-03			
Copper	1.52E+01	2.68E+01	1.47E+01	8.04E+00		1.29E+00	1.89E+00			
Nickel	8.82E-01	1.11E+00	1.47E+01	1.85E+01		3.71E-01	4.68E-01			
Pyrene	1.47E-02	2.65E-02	2.37E-02	4.27E-02		1.45E-03	2.61E-03			
Zinc	3.82E+02	1.15E+03	1.89E+02	5.69E+02		2.86E+01	8.59E+01			
HPAH	4.86E-01	1.38E+00	2.39E-01	6.81E-01		3.63E-02	1.03E-01			
TOTAL PAHs	4.86E-01	1.38E+00	2.39E-01	6.81E-01		3.63E-02	1.03E-01			
TOTAL INTAKE										
INTAKE = Sediment Intake + Food Intake										
Chemical										
Average		RME	Average		RME	Intake				
Chemical			Intake			Intake				
4,4'-DDD				1.93E-03		1.87E-04				
4,4'-DDT				1.15E-03		4.35E-04				
Benzo(b)fluoranthene				6.53E-03		1.45E-02				
Benzo(g,h,i)perylene				3.28E-03		1.85E-02				
Benzo(k)fluoranthene				7.22E-03		1.78E-02				
Cadmium				2.04E-02		3.74E-02				
Chrysene				1.50E-03		4.06E-03				
Copper				1.32E+00		1.94E+00				
Nickel				3.99E-01		5.03E-01				
Pyrene				1.48E-03		2.66E-03				
Zinc				2.91E+01		8.77E+01				
HPAH				3.66E-02		1.04E-01				
TOTAL PAHs				3.66E-02		1.04E-01				

TABLE I-6
ECOLOGICAL HAZARD QUOTIENT CALCULATIONS FOR POND SEDIMENT
SANDPIPER

Ecological Hazard Quotient = Intake/TRV					
Parameter	Definition	Default			
Intake	Intake of COPEC (mg/kg-day)	see Intake			
TRV	Toxicity Reference Value (mg/kg)	see TRV summary page			
Chemical	Average Intake	RME Intake	TRV Sandpiper	Average EHQ	RME EHQ
4,4'-DDD	1.48E-03	1.44E-04	2.27E-01	6.52E-03	6.34E-04
4,4'-DDT	8.85E-04	3.34E-04	2.27E-01	3.90E-03	1.47E-03
Benzo(b)fluoranthene	7.76E-03	1.73E-02			
Benzo(g,h,i)perylene	3.91E-03	2.20E-02			
Benzo(k)fluoranthene	8.58E-03	2.12E-02			
Cadmium	3.65E-02	6.70E-02	1.47E+00	2.49E-02	4.56E-02
Chrysene	2.49E-03	6.73E-03			
Copper	1.53E+00	1.62E+00	4.05E+00	3.79E-01	4.01E-01
Nickel	9.58E-01	1.21E+00	6.71E+00	1.43E-01	1.80E-01
Pyrene	2.06E-03	3.71E-03			
Zinc	2.75E+01	8.29E+01	6.61E+01	4.17E-01	1.25E+00
HPAH	3.44E-02	9.80E-02			
TOTAL PAHs	3.44E-02	9.80E-02			

TABLE I-7
ECOLOGICAL HAZARD QUOTIENT CALCULATIONS FOR POND SEDIMENT
GREEN HERON

Ecological Hazard Quotient = Intake/TRV					
Parameter	Definition	Default			
Intake	Intake of COPEC (mg/kg-day)	see Intake			
TRV	Toxicity Reference Value (mg/kg)	see TRV summary page			
Chemical	Average Intake	RME Intake	TRV Green Heron	Average EHQ	RME EHQ
4,4'-DDD	1.93E-03	1.87E-04	2.27E-01	8.49E-03	8.25E-04
4,4'-DDT	1.15E-03	4.35E-04	2.27E-01	5.07E-03	1.92E-03
Benzo(b)fluoranthene	6.53E-03	1.45E-02			
Benzo(g,h,i)perylene	3.28E-03	1.85E-02			
Benzo(k)fluoranthene	7.22E-03	1.78E-02			
Cadmium	2.04E-02	3.74E-02	1.47E+00	1.39E-02	2.55E-02
Chrysene	1.50E-03	4.06E-03			
Copper	1.32E+00	1.94E+00	4.05E+00	3.25E-01	4.79E-01
Nickel	3.99E-01	5.03E-01	6.71E+00	5.95E-02	7.50E-02
Pyrene	1.48E-03	2.66E-03			
Zinc	2.91E+01	8.77E+01	6.61E+01	4.41E-01	1.33E+00
HPAH	3.66E-02	1.04E-01			
TOTAL PAHs	3.66E-02	1.04E-01			

TABLE I-8
AVERAGE CONCENTRATION OF CHEMICAL IN FOOD ITEM (mg/kg)

C _{food} = C _{sed} x BSAF (or BSAF or BCF with food chain multiplier)										
where:										
C _{food} =	Chemical Concentration in food (mg/kg dry)									
C _{sed} =	Chemical Concentration in soil (mg/kg dry)									
BSAF	Biota to Sediment Accumulation Factor (unitless)									
BCF =	Bioconcentration Factor (unitless)									
Compound	Average C _{sed} (mg/kg)	Sediment to Worm BSAF	Worm Concentration	Reference	Sediment to Crab BSAF	Crab Concentration	Reference	Sediment to Fish BSAF	Fish Concentration	Reference
4,4'-DDD	6.96E-03	8.00E-01	5.56E-03 BSAF DB		4.02E+00	2.80E-02 BSAF DB		5.80E-01	4.03E-03 WSDOH, 1995	
4,4'-DDT	4.16E-03	8.00E-01	3.33E-03 BSAF DB		4.02E+00	1.67E-02 BSAF DB		5.80E-01	2.41E-03 WSDOH, 1995	
Benz(b)fluoranthene	4.77E-02	1.61E+00	7.67E-02 EPA, 1999		1.57E+00	7.48E-02 BSAF DB		6.60E-01	3.15E-02 WSDOH, 1995	
Benz(g,h,i)perylene	2.40E-02	1.61E+00	3.86E-02 EPA, 1999		1.57E+00	3.76E-02 BSAF DB		6.60E-01	1.58E-02 WSDOH, 1995	
Benz(k)fluoranthene	5.27E-02	1.61E+00	8.48E-02 EPA, 1999		1.57E+00	8.27E-02 BSAF DB		6.60E-01	3.48E-02 WSDOH, 1995	
Cadmium	1.47E-01	3.40E+00	5.00E-01 EPA, 1999		1.00E+00	1.47E-01 **		1.00E+00	1.47E-01 **	
Chrysene	9.50E-03	3.43E+00	3.26E-02 BSAF DB		1.29E+00	1.23E-02 BSAF DB		6.60E-01	6.27E-03 WSDOH, 1995	
Copper	1.52E+01	3.00E-01	4.56E+00 EPA, 1999		1.00E+00	1.52E+01 Max value fr		1.00E+00	1.52E+01 Max value from Calcasieu RI	
Nickel	1.63E+01	9.00E-01	1.47E+01 EPA, 1999		5.40E-02	8.82E-01 Max value fr		5.40E-02	8.82E-01 Max value from Calcasieu RI	
Pyrene	1.47E-02	1.61E+00	2.37E-02 EPA, 1999		1.00E+00	1.47E-02 **		6.60E-01	9.70E-03 WSDOH, 1995	
Zinc	3.32E+02	5.70E-01	1.89E+02 EPA, 2003		1.15E+00	3.82E+02 Max value fr		1.14E+00	3.78E+02 Max value from Calcasieu RI	
HPAH	1.49E-01	1.61E+00	2.39E-01 EPA, 1999		3.27E+00	4.86E-01 max PAH		6.60E-01	9.80E-02 WSDOH, 1995	
TOTAL PAHs	1.49E-01	1.61E+00	2.39E-01 EPA, 1999		3.27E+00	4.86E-01 max PAH		6.60E-01	9.80E-02 WSDOH, 1995	

Notes:

**If no BAF or BCF was available in the literature, a default value of 1.0 was used per EPA comments (EPA, 2009).

TABLE I-9
RME CONCENTRATION OF CHEMICAL IN FOOD ITEM (mg/kg)

C _{food} = C _{sed} x BSAF (or BCF with food chain multiplier)										
where:										
C _{food} =	Chemical Concentration in food (mg/kg dry)									
C _{sed} =	Chemical Concentration in soil (mg/kg dry)									
BSAF	Biota to Sediment Accumulation Factor (unitless)									
BCF =	Bioconcentration Factor (unitless)									
Compound	RME C _{sed} (mg/kg)	Sediment to Worm BSAF	Worm Concentration	Reference	Sediment to Crab BSAF	Crab Concentration	Reference	Sediment to Fish BSAF	Fish Concentration	Reference
4,4'-DDD	6.76E-04	8.00E-01	5.41E-04 BSAF DB		4.02E+00	2.72E-03 BSAF DB		5.80E-01	3.92E-04 WSDOH, 1995	
4,4'-DDT	1.57E-03	8.00E-01	1.26E-03 BSAF DB		4.02E+00	6.31E-03 BSAF DB		5.80E-01	9.11E-04 WSDOH, 1995	
Benz(b)fluoranthene	1.06E-01	1.61E+00	1.71E-01 EPA, 1999		1.57E+00	1.66E-01 BSAF DB		6.60E-01	7.00E-02 WSDOH, 1995	
Benz(g,h,i)perylene	1.35E-01	1.61E+00	2.17E-01 EPA, 1999		1.57E+00	2.12E-01 BSAF DB		6.60E-01	8.91E-02 WSDOH, 1995	
Benz(k)fluoranthene	1.30E-01	1.61E+00	2.09E-01 EPA, 1999		1.57E+00	2.04E-01 BSAF DB		6.60E-01	8.58E-02 WSDOH, 1995	
Cadmium	2.70E-01	3.40E+00	9.18E-01 EPA, 1999		1.00E+00	2.70E-01 **		1.00E+00	2.70E-01 **	
Chrysene	2.57E-02	3.43E+00	8.82E-02 BSAF DB		1.29E+00	3.32E-02 BSAF DB		6.60E-01	1.70E-02 WSDOH, 1995	
Copper	2.68E+01	3.00E-01	8.04E+00 EPA, 1999		1.00E+00	2.68E+01 Max value fr		1.00E+00	2.68E+01 Max value from Calcasieu RI	
Nickel	2.06E+01	9.00E-01	1.85E+01 EPA, 1999		5.40E-02	1.11E+00 Max value fr		5.40E-02	1.11E+00 Max value from Calcasieu RI	
Pyrene	2.65E-02	1.61E+00	4.27E-02 EPA, 1999		1.00E+00	2.65E-02 **		6.60E-01	1.75E-02 WSDOH, 1995	
Zinc	9.99E+02	5.70E-01	5.69E+02 EPA, 2003		1.15E+00	1.15E+03 Max value fr		1.14E+00	1.14E+03 Max value from Calcasieu RI	
HPAH	4.23E-01	1.61E+00	6.81E-01 EPA, 1999		3.27E+00	1.38E+00 max PAH		6.60E-01	2.79E-01 WSDOH, 1995	
TOTAL PAHs	4.23E-01	1.61E+00	6.81E-01 EPA, 1999		3.27E+00	1.38E+00 max PAH		6.60E-01	2.79E-01 WSDOH, 1995	

Notes:

**If no BAF or BCF was available in the literature, a default value of 1.0 was used per EPA comments (EPA, 2009).

TABLE I-10
ECOLOGICAL HAZARD QUOTIENT CALCULATIONS FOR POND SEDIMENT
CAPITELLA CAPITATA -- MIDPOINT BETWEEN ERL AND ERM COMPARISON

Ecological Hazard Quotient =		Sc/TRV						
Parameter	Definition	Default						
Sc	Soil Concentration (mg/kg)	see below						
Chemical	Average Sc	RME Sc	TRV capitella capitata	Average EHQ	RME EHQ			
4,4'-DDD	6.96E-03	6.76E-04	4.00E-03	1.74E+00	1.69E-01			
4,4'-DDT	4.16E-03	1.57E-03	4.00E-03	1.04E+00	3.93E-01			
Benzo(b)fluoranthene	4.77E-02	1.06E-01	1.80E+00	2.65E-02	5.89E-02			
Benzo(g,h,i)perylene	2.40E-02	1.35E-01	6.70E-01	3.58E-02	2.01E-01			
Benzo(k)fluoranthene	5.27E-02	1.30E-01	1.80E+00	2.93E-02	7.22E-02			
Cadmium	1.47E-01	2.70E-01	5.40E+00	2.73E-02	5.00E-02			
Chrysene	9.50E-03	2.57E-02	1.59E+00	5.97E-03	1.61E-02			
Copper	1.52E+01	2.68E+01	1.52E+02	1.00E-01	1.76E-01			
Nickel	1.63E+01	2.06E+01	3.63E+01	4.50E-01	5.68E-01			
Pyrene	1.47E-02	2.65E-02	1.63E+00	9.00E-03	1.62E-02			
Zinc	3.32E+02	9.99E+02	2.80E+02	1.19E+00	3.57E+00			
HPAH	1.49E-01	4.23E-01	5.65E+00	2.63E-02	7.49E-02			
TOTAL PAHs	1.49E-01	4.23E-01	2.44E+01	6.09E-03	1.73E-02			

TABLE I-11
ECOLOGICAL HAZARD QUOTIENT CALCULATIONS FOR POND SEDIMENT
CAPITELLA CAPITATA -- ERM COMPARISON

Ecological Hazard Quotient =		Sc/TRV						
Parameter	Definition	Default						
Sc	Soil Concentration (mg/kg)	see below						
TRV	Toxicity Reference Value (mg/kg)	see TRV summary page						
Chemical	Average Sc	RME Sc	TRV <i>capitella capitata</i>	Average EHQ	RME EHQ			
4,4'-DDD	6.96E-03	6.76E-04	7.00E-03	9.94E-01	9.66E-02			
4,4'-DDT	4.16E-03	1.57E-03	7.00E-03	5.94E-01	2.24E-01			
Benzo(b)fluoranthene	4.77E-02	1.06E-01	1.80E+00	2.65E-02	5.89E-02			
Benzo(g,h,i)perylene	2.40E-02	1.35E-01	6.70E-01	3.58E-02	2.01E-01			
Benzo(k)fluoranthene	5.27E-02	1.30E-01	1.80E+00	2.93E-02	7.22E-02			
Cadmium	1.47E-01	2.70E-01	9.60E+00	1.53E-02	2.81E-02			
Chrysene	9.50E-03	2.57E-02	2.80E+00	3.39E-03	9.18E-03			
Copper	1.52E+01	2.68E+01	2.70E+02	5.63E-02	9.93E-02			
Nickel	1.63E+01	2.06E+01	5.16E+01	3.16E-01	3.99E-01			
Pyrene	1.47E-02	2.65E-02	2.60E+00	5.65E-03	1.02E-02			
Zinc	3.32E+02	9.99E+02	4.10E+02	8.10E-01	2.44E+00			
HPAH	1.49E-01	4.23E-01	9.60E+00	1.55E-02	4.41E-02			
TOTAL PAHs	1.49E-01	4.23E-01	4.48E+01	3.32E-03	9.45E-03			